

PROJECT DESCRIPTION

I. GENERAL

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 173 (FORT SMALLWOOD RD) AND DUVALL HWY/VALLEY RD IN ANNE ARUNDEL COUNTY. THE MODIFICATION WILL REPLACE THE EXISTING PEDESTRIAN SIGNALS WITH APS/CPS. MD 173 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

II. INTERSECTION OPERATION

THE INTERSECTION OPERATES IN A NEMA FIVE (5) PHASE FULLY-ACTUATED MODE. THERE IS AN EXCLUSIVE LEFT TURN FOR NORTHBOUND MD 173. THE MD 173 MOVEMENTS OPERATE CONCURRENTLY AND DUVALL HWY/VALLEY ROAD OPERATES IN SPLIT PHASING WITH AN ALTERNATIVE ACTUATED PEDESTRIAN PHASE WITH AUDIBLE PEDESTRIAN SIGNALS ACROSS THE SOUTHERN LEG OF THE INTERSECTION.

III. SPECIAL NOTES

APS WILL FUNCTION AS FOLLOWS:  
TO CROSS MD 173 (FORT SMALLWOOD RD)

- WHEN A PEDESTRIAN LOCATES AND PRESSES THE PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE THE FOLLOWING MESSAGE: "WAIT TO CROSS FORT SMALLWOOD AT DUVALL. WAIT."
- WHEN THE WALK PHASE BEGINS, THE PUSHBUTTON UNIT WILL PROVIDE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

CONTACTS

DISTRICT (DISTRICT 5)

MR. LEE STARKLOFF  
DISTRICT ENGINEER  
410-841-1001

MS. KIMBERLY TRAN  
ASSISTANT DISTRICT ENGINEER - TRAFFIC  
410-841-1003

MR. MIKE HUBER  
DISTRICT UTILITY ENGINEER  
410-841-1039

MR. JAMES FOLDEN  
ASSISTANT DISTRICT ENGINEER - CONSTRUCTION  
410-841-1031

MR. JOSEPH GECKLE  
ASSISTANT DISTRICT ENGINEER - MAINTENANCE  
410-841-1013

OFFICE OF TRAFFIC AND SAFETY

MS. CORREN JOHNSON  
CHIEF, TRAFFIC OPERATIONS  
410-787-7630

MR. ROBERT SNYDER  
ASSISTANT DIVISION CHIEF, TRAFFIC OPERATIONS  
410-787-7630

MR. EDWARD RODENHIZER  
CHIEF, SIGNAL OPERATIONS SECTION  
410-787-7650

MR. EUGENE BAILEY  
CHIEF, SIGN OPERATIONS SECTION  
410-787-7670

MR. MICHAEL STOCKER  
SUPPLY OFFICER IV (SIGNAL SHOP WAREHOUSE)  
410-787-7696

EQUIPMENT LIST

A. EQUIPMENT TO BE FURNISHED BY STATE HIGHWAY ADMINISTRATION

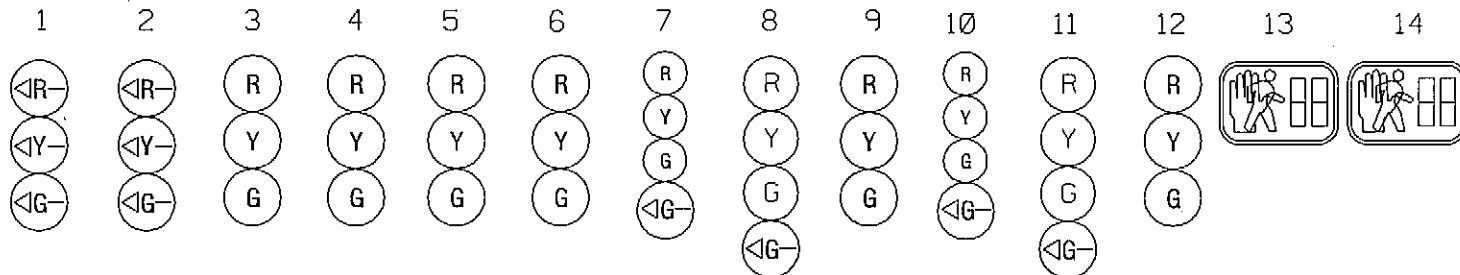
| ITEM NO. | QUANTITY | UNIT | DESCRIPTION   |
|----------|----------|------|---|
| 9571     | 70       | SF   | SHEET ALUMINUM MAST ARM/POLE MOUNTED SIGN<br>2 EA R10-3(1) "PUSH BUTTON TO CROSS 'FORT SMALLWOOD'" (9"x15")<br>2 EA M1-5(6) (48"x72")<br>2 EA M1-5(6) (30"x48") |

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR

| ITEM NO. | QUANTITY | UNIT | DESCRIPTION   |
|----------|----------|------|---|
| 1001     | 1        | EA   | MAINTENANCE OF TRAFFIC  |
| 2002     | 1        | CY   | TEST PIT EXCAVATION   |
| 5003     | 370      | LF   | REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS                        |
| 5004     | 340      | LF   | 12 IN WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES                  |
| 5005     | 40       | LF   | 24 IN WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES                  |
| 6001     | 70       | LF   | STANDARD TYPE 'A' COMBINATION CURB AND GUTTER 12 IN. GUTTER PAN 8 IN. DEPTH |
| 6002     | 310      | SF   | 5 IN. CONCRETE SIDEWALK   |
| 6003     | 20       | SF   | DETECTABLE WARNING SURFACE FOR CURB RAMPS                                   |
| 8008     | 2        | EA   | AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS                     |
| 8009     | 2        | EA   | BREAKAWAY PEDESTAL POLE (ANY SIZE)  |
| 8018     | 2        | EA   | LED 16 IN. COUNTDOWN PEDESTRIAN SIGNAL HEAD                                 |
| 8032     | 1        | EA   | VIDEO DETECTION CAMERA AND CABLE ANY LENGTH                                 |
| 8043     | 35       | LF   | UP TO 4 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED                        |
| 8045     | 70       | SF   | INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)            |
| 8047     | 40       | LF   | NO. 6 AWG STRANDED BARE COPPER GROUND WIRE                                  |
| 8058     | 160      | LF   | ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)                                 |
| 8060     | 175      | LF   | ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)                                 |

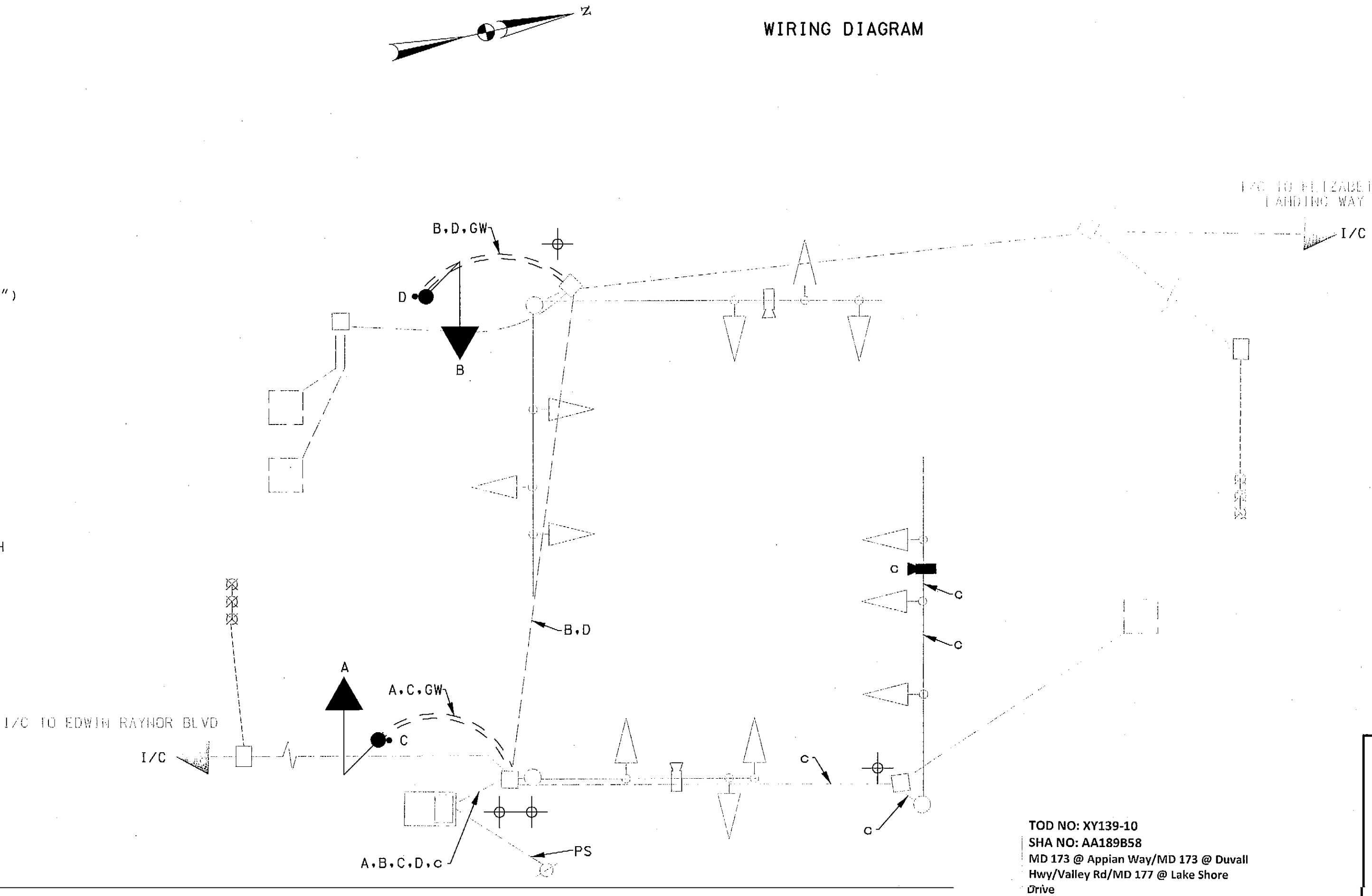
C. ALL MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE SIGNAL CONTRACTOR UPON COMPLETION OF THE SIGNAL MODIFICATIONS.

PHASE CHART



|                | 1     | 2     | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12   | 13    | 14    |
|----------------|-------|-------|------|------|------|------|------|------|------|------|------|------|-------|-------|
| Phase 1 & 6    | <R-   | <R-   | R    | R    | R    | R    | R    | R    | R    | R    | R    | R    | DW    | DW    |
| 1 Change       | <Y-   | <Y-   | G    | G    | R    | R    | R    | R    | R    | R    | R    | R    | DW    | DW    |
| Phase 2 & 6    | <R-   | <R-   | G    | G    | G    | G    | R    | R    | R    | R    | R    | R    | DW    | DW    |
| 2 & 6 Change   | <R-   | <R-   | Y    | Y    | Y    | Y    | R    | R    | R    | R    | R    | R    | DW    | DW    |
| Phase 3        | <R-   | <R-   | R    | R    | R    | R    | R    | R    | R    | <G-G | <G-G | G    | DW    | DW    |
| 3 Change       | <R-   | <R-   | R    | R    | R    | R    | R    | R    | R    | Y    | Y    | Y    | DW    | DW    |
| Phase 4        | <R-   | <R-   | R    | R    | R    | R    | <G-G | <G-G | G    | R    | R    | R    | DW    | DW    |
| 4 Change       | <R-   | <R-   | R    | R    | R    | R    | Y    | Y    | Y    | R    | R    | R    | DW    | DW    |
| Phase 4 Alt.   | <R-   | <R-   | R    | R    | R    | R    | <G-G | <G-G | G    | R    | R    | R    | WK    | WK    |
| Ped Clearance. | <R-   | <R-   | R    | R    | R    | R    | <G-G | <G-G | G    | R    | R    | R    | FL/DW | FL/DW |
| 4 Alt. Change  | <R-   | <R-   | R    | R    | R    | R    | Y    | Y    | Y    | R    | R    | R    | DW    | DW    |
| Flashing       | <FL/R | <FL/R | FL/Y | FL/Y | FL/Y | FL/Y | FL/R | FL/R | FL/R | FL/R | FL/R | FL/R | DARK  | DARK  |
| Operation      | <FL/R | <FL/R | FL/Y | FL/Y | FL/Y | FL/Y | FL/R | FL/R | FL/R | FL/R | FL/R | FL/R | DARK  | DARK  |

WIRING DIAGRAM



WIRING KEY

- A.B - 5 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- C.D - 2 CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- c - VIDEO DETECTION LEAD-IN CABLE
- I/C - EXISTING INTERCONNECT
- PS - EXISTING POWER CABLE
- GW - 1 CONDUCTOR STRANDED COPPER GROUND WIRE (NO. 6 AWG)
- + - EXISTING GROUND ROD

TOD NO: XY139-10  
SHA NO: AA189B58  
MD 173 @ Applan Way/MD 173 @ Duvall Hwy/Valley Rd/MD 177 @ Lake Shore Drive



STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION

MD 173 (FORT SMALLWOOD RD) at DUVALL HWY/VALLEY RD

ASHBURN, MD

GENERAL INFORMATION SHEET

SCALE N.T.S. DATE MAY 1, 2013 CONTRACT NO. XY139S185

DESIGNED BY MAW COUNTY ANNE ARUNDEL

DRAWN BY MAW LOGMILE 02017304.17

CHECKED BY KMP TIMS NO. 1658

F.A.P. NO. TOD NO.

TS NO. 21J-GI DRAWING SG-02 OF 02 SHEET NO. 04 OF 06

PARSONS  
BRINCKERHOFF

100 S. Charles Street  
Tower 1, 10th Floor  
Baltimore, MD 21201  
(Ph) 410-787-5050  
(Fax) 410-727-4608  
http://www.pbworld.com